

SK



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER OF PATENTS AND TRADEMARKS  
Washington, D.C. 20231  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/970,955	10/04/2001	A. James Smith JR.	Smith 5	2659

26345 7590 09/26/2002

GIBBONS, DEL DEO, DOLAN, GRIFFINGER & VECCHIONE  
1 RIVERFRONT PLAZA  
NEWARK, NJ 07102-5497

EXAMINER

DARROW, JUSTIN T

ART UNIT	PAPER NUMBER
----------	--------------

2132

DATE MAILED: 09/26/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Handwritten signature

# Office Action Summary

Application No.

09/970,955

Applicant(s)

SMITH, JR., A. JAMES

Examiner

Justin T. Darrow

Art Unit

2132

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 07 August 2002.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-55 is/are pending in the application.
- 4a) Of the above claim(s) 33-42 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-5, 12-19 and 21-26 is/are allowed.
- 6) ☒ Claim(s) 6-11, 27-32 and 43-55 is/are rejected.
- 7) ☒ Claim(s) 20 is/are objected to.
- 8) ☒ Claim(s) 1-42 are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 04 October 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☒ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_ 6) ☐ Other: \_\_\_\_\_

### **DETAILED ACTION**

1. Claims 1-55 have been presented for examination. Claims 1-42 are subject to a restriction and/or election requirement. Claims 1-32 have been elected with traverse and claims 33-42 have been withdrawn from consideration in a telephonic interview, 05/10/2002, and affirmed in a reply to Office action filed 08/07/2002. Claims 6, 21, and 32 have been amended and new claims 43-55 have been added in an amendment filed 08/07/2002. Claims 1-32 and 43-55 have been examined.

### ***Election/Restrictions***

2. Restriction to one of the following inventions is required under 35 U.S.C. 121:
- I. Claims 1-32, drawn to a method for securing access to passwords and personal identification numbers, a method for securing data and for providing secure access, a system for securing access to passwords and personal identification numbers with a MasterCode having ten characters associated with ten digits, a device for securing access to passwords and personal identification numbers, and a method for securing data, classified in class 713, subclass 184.
  - II. Claims 33-42, drawn to a method for using a grid to gain access to encrypted passwords in which the grid is broken into cells, classified in class 713, subclass 185.

The inventions are distinct, each from the other because of the following reasons:

3. Inventions Group I and Group II are unrelated. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of

Art Unit: 2132

operation, different functions, or different effects (MPEP § 806.04, MPEP § 808.01). In the instant case, the different inventions have different modes of operation: Group I, disguising a password in a grid of characters; Group II, providing a grid with pictorial representations of users of subordinate devices. The different inventions also have different functions: Group I, decrypting passwords or data using a key decoded from the grid in which the passwords are disguised; Group II, gaining access to passwords after recreating a particular pictorial representation in the grid.

4. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

5. Because these inventions are distinct for the reasons given above and the search required for Group I is not required for Group II, restriction for examination purposes as indicated is proper.

6. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art because of their recognized divergent subject matter, restriction for examination purposes as indicated is proper.

7. During a telephone conversation with Henry J. Walsh on 05/10/2002 a provisional election was made with traverse to prosecute the invention of Group I, claims 1-32. Affirmation of this election with traverse in replying to the last Office action was made in a reply filed 08/07/2002. Claims 33-42 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

Art Unit: 2132

8. Applicant's election with traverse of Group I, claims 1-32 in Paper Nos. 10 and 11 is acknowledged. The traversal is on the grounds that the inventions of Group I and II are complementary process. This is not found persuasive because the limitations of the claims of Group II do not correspond to inverse operation of that claimed in Group I. As specified above, the two inventions have different modes of operation and different functions. The limitation in claim 33, "each cell contains a unique image, symbol, or pictogram used to identify a user of subordinate device," is not the inverse of any limitation in any of the claims of Group I.

The requirement is still deemed proper and is therefore made FINAL.

***Priority***

9. Acknowledgment is made of the claim for domestic priority of Application No. 09/891,132, filed on 06/25/2001, now abandoned, which in turn claims priority to 09/022,578, now U.S. Patent No. 6,253,328 B1, filed on 02/12/1998.

10. Applicant's claim for domestic priority under 35 U.S.C. 120 is acknowledged. However, the Application No. 09/022,578 upon which priority is claimed fails to provide adequate support under 35 U.S.C. 112 for claims 6-11, 27-32, and 43-55 of this application. As per claims 6-11, Application No. 09/022,578 provides no written description of encrypting data using a graphical image as an encryption key (see page 8, lines 12-21 and page 9, lines 1-11). As per claims 27-32, Application No. 09/022,578 provides no support for masking data using a graphical image as a key (see page 8, lines 12-21 and page 9, lines 1-11). As per claims 43-55, Application No. 09/022,578 provides no support for masking a password in a graphical image (see page 8, lines 12-21 and page 9, lines 1-11).

Art Unit: 2132

11. Applicant's argument with respect to support for claim 12 of the instant application in parent Application No. 09/022,578 is acknowledged. Claim 12 has the benefit of the filing date of Application No. 09/022,578, now U.S. Patent No. 6,253,328 B1, filed on 02/12/1998.

***Oath/Declaration***

12. The declaration, filed 08/07/2002, is defective. A new oath or declaration in compliance with 37 CFR 1.67(a) identifying this application by application number and filing date is required. See MPEP §§ 602.01 and 602.02.

The declaration is defective because:

The specification to which the oath or declaration is directed has not been adequately identified. The declaration states that the specification has been filed herewith. This is improper. The specification was filed previously with a filing date 10/04/2001 and with a assigned Application No. 09/970,955. See MPEP § 601.01(a).

***Terminal Disclaimer***

13. The terminal disclaimer filed on 08/07/2002 disclaiming the terminal portion of any patent granted on this application which would extend beyond the expiration date of U.S. Patent No. 6,253,328 B1 has been reviewed and is accepted. The terminal disclaimer has been recorded.

***Response to Amendment***

14. The amendment to the claim 6 filed on 08/07/2002 does not comply with the required correction to overcome the objection.

15. There is no amendment to claim 20 in the reply to Office action filed 08/07/2002.

***Response to Arguments***

16. Applicant's arguments filed 08/07/2002 have been fully considered but they are not persuasive.

17. In response to applicant's argument that Jackson, U.S. Patent No. 5,793,871 A is nonanalogous art, it has been held that a prior art reference must either be in the field of applicant's endeavor or, if not, then be reasonably pertinent to the particular problem with which the applicant was concerned, in order to be relied upon as a basis for rejection of the claimed invention. See *In re Oetiker*, 977 F.2d 1443, 24 USPQ2d 1443 (Fed. Cir. 1992).

As per claim 6, Jackson does describe that the 2D pixel array of the spatial light modulator SLM is a graphical image that operates on the readout beam so as to encrypt the data contained in the readout beam (see column 6, lines 27-53 and figure 2A, items 207 E<sub>1</sub>, 206 SLM, and 209 E<sub>2</sub>).

As per claim 27, Jackson does show electrically addressing a spatial light modulator SLM with a stripped data packet from a header stripper (see column 6, lines 18-20 and figure 2A, items 204 and 206 SLM) to create an image in the 2D pixel array of a spatial light modulator SLM (see column 6, lines 43-53 and figure 2A, item 206 SLM); scrambling the readout beam imprinted with the image of the spatial light modulator SLM with a phase scrambling device (see column 6, lines 27-64 and figure 2A, items 206 SLM, 207 E<sub>1</sub>, 209 E<sub>2</sub>, 210, and 211 E<sub>2</sub>'). She shows that the image on the spatial light modulator acts as a key on the data contained in the readout beam to form encrypted data when operated on by the phase scrambling device (see column 6, lines 27-64 and figure 2A, items 206 SLM, 207 E<sub>1</sub>, 209 E<sub>2</sub>, 210, and 211 E<sub>2</sub>'). There is no key information in the phase scrambling device.

Art Unit: 2132

As per claim 28, Jackson further illustrates electrically addressing a spatial light modulator SLM with a stripped data packet from a header stripper (see column 6, lines 18-20 and figure 2A, items 204 and 206 SLM) to create an image in the 2D pixel array of a spatial light modulator SLM (see column 6, lines 43-53 and figure 2A, item 206 SLM) in which scramble phase component is formed in x and y coordinates (see column 6, lines 43-64 and figure 2A, items stripped data, 206, SLM, 209,  $E_2$ , 210,  $E_2'$ ); and selecting pixels from this component to form a factor  $F(h_m, y_n)$  which acts as a key (see column 6, lines 43-54).

18. In response to applicant's argument that Cass et al., U.S. Patent No. 5,946,414 A. is nonanalogous art, it has been held that a prior art reference must either be in the field of applicant's endeavor or, if not, then be reasonably pertinent to the particular problem with which the applicant was concerned, in order to be relied upon as a basis for rejection of the claimed invention. See *In re Oetiker*, 977 F.2d 1443, 24 USPQ2d 1443 (Fed. Cir. 1992).

As per claims 6 and 7, Cass et al. do show that the signal blocks encoding a message m with the signal blocks (see column 13, lines 57-67 and figure 1, items 200 and 70) so as not to be perceptible to a human viewer (see column 6, lines 56-66). The signal blocks clearly act as a key to encrypt the message (see column 13, lines 57-67 and figure 1, items 200 and 70). Cass et al. further depict aligning the signal blocks for recovering the message m (see column 29, lines 15-41 and figure 43, items 802, 820, 890, and 898). In column 29, lines 40-41, Cass et al. only refer to orientation and scale of the signal cells (see column 29, lines 39-40), not to the composite process of recovering the message (see column 29, lines 15-41 and figure 43, items 802, 820, 890, and 898).



Art Unit: 2132

As per claim 8, Cass et al. further describe different color modulations along a spatial vector in two dimensions representative of a MasterGrid applied to and stored with a signal block(see column 14, lines 35-53 and figure 2).

As per claims 9-11, Cass et al. subsequently specify a combining process for the color modulations of the signal blocks along the spatial vector pathways in two dimensions as a grid reference (see column 17, lines 30-41 and figures 9 and 10).

As per claims 27-32, in response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., specification, page 3, lines 20-22) are not recited in the rejected claim. Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). The applicant has not argued convincingly that signal blocks cannot be used as a key for masking data because the signal blocks are arranged according to the message m. Arranging a key according to message corresponds to a particular algorithm used for encoding (see column 13, lines 57-67 and figure 1, items 200 and 70) and decoding (see column 29, lines 15-41 and figure 43, items 802, 820, 890, and 898). Cass et al. do describe the message m as consisting of character symbols (see column 15, lines 32-44 and figure 1, item 20); defining signal blocks in terms of "0"s and "1"s (see column 13, lines 50-57; column 14, lines 28-34; figure 1, item 30; and figure 2, items 32 and 33); and encrypting the message m with color modulation of the signal blocks (see column 16, lines 29-53; figure 3, step 280; and figure 4, items 22 and 74).

Art Unit: 2132

***Claim Objections***

19. Claim 6 is objected to because of the following informality: delete “access” in line 4.

Appropriate correction is required.

20. Claim 20 is objected to because of the following informality: delete “constants” in line 2 and replace with --consonants--. Appropriate correction is required.

***Claim Rejections - 35 USC § 101***

21. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

22. Claims 6-11 are rejected under 35 U.S.C. 101 because the disclosed invention is inoperative and therefore lacks utility. Claim 6 recites “encrypting said data access” in line 4. Data access is a process. Encryption can be performed on data but not on a process. Encrypting a process is inoperative. This rejection can be overcome by deleting “access” in claim 6, line 4.

***Claim Rejections - 35 USC § 102***

23. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

24. Claims 6, 27, and 28 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Jackson, U.S. Patent No. 5,793,871 A.

Art Unit: 2132

As per claim 6, Jackson illustrates a method for securing data comprising: electrically addressing a spatial light modulator SLM with a stripped data packet from a header stripper (see column 6, lines 18-20 and figure 2A, items 204 and 206 SLM) to create an image in the 2D pixel array of a spatial light modulator SLM (see column 6, lines 43-53 and figure 2A, item 206 SLM); scrambling the readout beam imprinted with the image of the spatial light modulator SLM with a phase scrambling device (see column 6, lines 27-64 and figure 2A, items 206 SLM, 207 E<sub>1</sub>, 209 E<sub>2</sub>, 210, and 211 E<sub>2</sub>’); and providing the detailed information regarding the original reference beam for decryption of the enciphered data stream (see column 7, lines 39-60; figure 2A, item 215; and figure 2b, items enciphered data, 230, 231, 233, 234, and 235).

As per claim 27, Jackson illustrates a method for securing data comprising: electrically addressing a spatial light modulator SLM with a stripped data packet from a header stripper (see column 6, lines 18-20 and figure 2A, items 204 and 206 SLM) to create an image in the 2D pixel array of a spatial light modulator SLM (see column 6, lines 43-53 and figure 2A, item 206 SLM); scrambling the readout beam imprinted with the image of the spatial light modulator SLM with a phase scrambling device (see column 6, lines 27-64 and figure 2A, items 206 SLM, 207 E<sub>1</sub>, 209 E<sub>2</sub>, 210, and 211 E<sub>2</sub>’).

As per claim 28, Jackson further specifies electrically addressing a spatial light modulator SLM with a stripped data packet from a header stripper (see column 6, lines 18-20 and figure 2A, items 204 and 206 SLM) to create an image in the 2D pixel array of a spatial light modulator SLM (see column 6, lines 43-53 and figure 2A, item 206 SLM) in which scramble phase component is formed in x and y coordinates (see column 6, lines 43-64 and figure 2A, items

Art Unit: 2132

stripped data, 206, SLM, 209,  $E_2$ , 210,  $E_2'$ ); and selecting pixels from this component to form a factor  $F(h_m, y_n)$  which acts as a key (see column 6, lines 43-54).

25. Claims 6-11 and 27-32 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Cass et al., U.S. Patent No. 5,946,414 A.

As per claim 6, Cass et al. show a method for securing data comprising: defining signal blocks (see column 13, lines 50-57 and figure 1, item 30); encrypting a message  $m$  with the signal blocks (see column 13, lines 57-67 and figure 1, items 200 and 70) so as not to be perceptible to a human viewer (see column 6, lines 56-66); and aligning the signal blocks for recovering the message  $m$  (see column 29, lines 15-41 and figure 43, items 802, 820, 890, and 898).

As per claim 7, Cass et al. further describe that the signal blocks is formed from data items indicating "0" and "1" (see column 14, lines 8-12 and figure 2) utilizing dimensions of  $K \times K$  units of color cells (see column 14, lines 12-16 and figure 2).

As per claim 8, Cass et al. additionally depict different color modulations along a spatial vector in two dimensions representative of a MasterGrid applied to and stored with a signal block (see column 14, lines 35-53 and figure 2).

As per claim 9, Cass et al. also specify a combining process for the color modulations of the signal blocks along the spatial vector pathways in two dimensions as a grid reference (see column 17, lines 30-41 and figures 9 and 10).

As per claim 10, Cass et al. embody this combining process defined by a character string of "0"s and "1"s (see column 17, lines 30-41 and figures 9 and 10).

Art Unit: 2132

As per claim 11, Cass et al. alternatively depict spatially in the KxK units (see column 17, lines 30-45 and figures 8, 9, and 10).

As per claim 27, Cass et al. show a method for securing data comprising: defining signal blocks (see column 13, lines 50-57 and figure 1, item 30); and encrypting a message m with the signal blocks (see column 13, lines 57-67 and figure 1, items 200 and 70).

As per claim 28, Cass et al. further depict spatially formed and arranged signal blocks (see column 16, lines 16-19 and figure 3, step 280) for encryption (see column 16, lines 1-12 and figure 4, item 74).

As per claim 29, Cass et al. describe the message m as consisting of character symbols in a language (see column 15, lines 32-44 and figure 1, item 20); defining signal blocks in terms of “0”s and “1”s (see column 13, lines 50-57; column 14, lines 28-34; figure 1, item 30; and figure 2, items 32 and 33); and encrypting the message m with color modulation of the signal blocks (see column 16, lines 29-53; figure 3, step 280; and figure 4, items 22 and 74).

As per claim 30, Cass et al. moreover embody the message m as consisting of character symbols in a language such as ASCII or UNICODE (see column 15, lines 32-44 and figure 1, item 20).

As per claim 31, Cass et al. also disclose that the signal blocks in terms of “0”s and “1”s (see column 13, lines 50-57; column 14, lines 28-34; figure 1, item 30; and figure 2, items 32 and 33); and that the relationship is the ordered sequence of data (see column 16, lines 29-63; figure 2, items 32 and 33; and figure 4, items 22, 23, 24, 32, 33, and 74).

As per claim 32, Cass et al. also explain the relationship as tracing out the message corresponding to the image (see column 16, lines 29-63; figure 2, items 32 and 33; and figure 4, items 22, 23, 24, 32, 33, and 74).

26. Claims 43-55 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Mytec Technologies, Inc. (Tomko), International Patent Application Publication No. WO 97/055578 A1.

As per claims 43 and 49, Tomko discloses a method and system for accessing an apparatus using a password comprising: an optical beam reflected from a prism surface that is modulated with the characteristics of a fingerprint and then focused onto a camera (see page 6, lines 1-3 and figure 1A, items 12, 14, 16, and 20); encrypting a PIN with fingerprint related information (see page 6, lines 3-9 and figure 1A, items 23, 24, 25, and 26); and a device require a deciphered PIN decrypted with the fingerprint-related information (see page 6, lines 11-21 and figure 1B, items 16, 204, 208, and 40).

As per claims 44 and 50, Tomko also explains a generating function combined with the PIN that depends on  $r$ , a vector in 2D spatial domain of the fingerprint image (see page 6, lines 23-29 and page 7, lines 1-4).

As per claims 45 and 51, Tomko then defines a vector  $r$  in 2D spatial domain that forms a pattern of a line (see page 7, lines 1-3).

As per claims 46 and 52, Tomko moreover specifies that a lens performs optically the Fourier transform of the image  $f(r)$  to select the vector  $r$  for decryption of the PIN (see page 8, lines 1-3 and figure 2, items 226 and 228).

As per claims 47 and 53, Tomko additionally mention that the function  $f(r)$  is a 2D function representing a biometric image (see page 7, lines 2-3).

As per claims 48 and 54, Tomko further illustrate decrypting including determining function  $f(r)$  from inverse transformation (see page 8, lines 3-10 and figure 2, items 206, 208, 207, 230, and 232).

As per claim 55, Tomko subsequently explains that a noisy pattern, not the correct PIN, will result if the fingerprint used during decryption is different from that used during encryption (see page 9, lines 1-3).

27. Claims 43-45, 47, 49-51, 53, and 55 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Toyoda et al., U.S. Patent No. 5,812,278 A.

As per claims 43 and 49, Toyada et al. illustrate a method and system for accessing an apparatus using a password comprising: displaying a graphical image (see column 18, lines 35-37 and figure 16); enciphering a pass-word on the basis of the image (see column 18, lines 38-58 and figure 16); and deciphering the pass-word based on the image and determining if the result agrees with a prescribed pass-word (see column 19, lines 24-31 and figure 18, steps S160 and S161).

As per claims 44 and 50, Toyada et al. further explain pieces of data "01", "7E", and "10" placed at the fifth byte, the 50<sup>th</sup> byte and 100<sup>th</sup> byte of the image data used in enciphering the pass-word (see column 18, lines 38-58 and figure 16).

As per claims 45 and 51, Toyada et al. then disclose that these pieces of data form a pattern arranged one after another in that order to form a cipher key (see column 18, lines 44-49 and figure 16).

Art Unit: 2132

As per claims 47 and 53, Toyada et al. also suggest selecting the subset from particular positions in the image data (see column 18, lines 38-49 and figure 16).

As per claim 55, Toyada et al. embody error information transmitted to the transmitting side if the deciphered pass-word is determined not to agree with a prescribed pass-word (see column 19, lines 24-29 and figure 18, steps S161 and S164).

***Allowable Subject Matter***

28. Claims 1-5, 12-19, and 21-26 are allowed.

29. Claim 20 would be allowable if rewritten or amended to overcome the objection set forth in this Office action.

30. The following is an examiner's statement of reasons for allowance: Claims 1-5 are drawn to a method for securing access passwords and personal identification numbers. The closest prior art, Smith, U.S. Patent No. 312,665 A, discloses a similar method. Although Smith teaches associating a selected character to a corresponding digit (see page 1, lines 9-20 and figure 1), he neither shows nor implies providing a grid forming a matrix of squares totaling at least as many squares, as the characters in the password. This distinct feature explicitly recited in independent claim 1 renders claims 1-5 allowable. Claims 12-19 are drawn to a system for securing passwords and personal identification numbers. The closest prior art, Smith, U.S. Patent No. 312,665 A, discloses a similar system. Although Smith mentions a translator for translating a numeric sequence into a corresponding character sequence (see page 1, lines 21-32) and expanding the corresponding character sequence into at least one word (see page 1, lines 21-32), he does not discuss embedding a mastercode in a mastergrid. This particular feature



Art Unit: 2132

explicitly incorporated into independent claim 12 renders claims 12-19 allowable. Claims 21-26 are drawn to a device for securing passwords and personal identification numbers. The closest prior art, Smith, U.S. Patent No. 312,665 A, discloses a similar device. Although Smith illustrates a generator for creating a mastercode having randomly associated with numbers, symbols and letters (see page 1, lines 9-20 and figure 1, item c); and a translator for translating a numeric sequence into a corresponding character sequence (see page 1, lines 21-32 and figure 1), he neither teaches nor implies a means for embedding the mastercode in a mastergrid. This distinct feature recited in independent claim 21 renders claims 21-26 allowable.

31. The following is a statement of reasons for the indication of allowable subject matter: Claim 20 is drawn to a system for securing passwords and personal identification numbers. The closest prior art, Smith, U.S. Patent No. 312,665 A, discloses a similar system. Although Smith mentions a translator for translating a numeric sequence into a corresponding character sequence (see page 1, lines 21-32) and expanding the corresponding character sequence into at least one word (see page 1, lines 21-32), he does not discuss embedding a mastercode in a mastergrid. This particular feature explicitly incorporated into independent claim 12 upon which claim 20 depends renders claim 20 to have allowable subject matter.

### ***Conclusion***

32. Applicant's amendment necessitated the new grounds of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

Art Unit: 2132

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

#### ***Telephone Inquiry Contacts***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Justin T. Darrow whose telephone number is (703) 305-3872 and whose electronic mail address is [justin.darrow@uspto.gov](mailto:justin.darrow@uspto.gov). The examiner can normally be reached Monday-Friday from 8:30 AM to 5:00 PM.

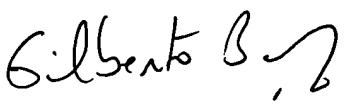
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gilberto Barrón, Jr., can be reached at (703) 305-1830.


The fax numbers for Formal or Official faxes to Technology Center 2100 are (703) 305-0040 and (703) 746-7239. Draft or Informal faxes for this Art Unit can also be submitted to (703) 746-7240. In order for a formal paper transmitted by fax to be entered into the application file, the paper and/or fax cover sheet must be signed by a representative for the applicant. Faxed formal papers for application file entry, such as amendments adding claims, extensions of time, and statutory disclaimers for which fees must be charged before entry, must be transmitted with

Art Unit: 2132

an authorization to charge a deposit account to cover such fees. It is also recommended that the cover sheet for the fax of a formal paper have printed "**OFFICIAL FAX**". Formal papers transmitted by fax usually require three business days for entry into the application file and consideration by the examiner. Formal or Official faxes including amendments after final rejection (37 CFR 1.116) should be submitted to (703) 746-7238 for expedited entry into the application file. It is further recommended that the cover sheet for the fax containing an amendment after final rejection have printed not only "**OFFICIAL FAX**" but also "**AMENDMENT AFTER FINAL**".

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 305-3900.

  
GILBERTO BARRON  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2100

  
Justin T. Darrow

Patent Examiner

Technology Center 2100

September 24, 2002